

CLAIMS

1. A process for the production of particles comprising at least one core of core material containing perfume absorbed therein, the core being coated with at least one water-soluble encapsulating material that is impervious to the said perfume, the process comprising:
 - a) mixing at least one water-soluble encapsulating material, an aqueous solution, at least one core material and at least one perfume to produce a slurry thereof;
 - b) heating the slurry to reduce the water content thereof, so as to produce a molten or rubbery mass from the slurry, wherein heating is effected at least in part in a pre-heater;
 - c) extruding the molten or rubbery mass through a die; and
 - d) physically processing the extruded material to produce particles.
2. A process according to claim 1, wherein the temperature of the slurry on extrusion is not more than about 25°C, more preferably not more than about 15°C, above the T_g of the encapsulating material.
3. A process according to claim 1, wherein the core material comprises a swellable material.
4. A process according to claim 3, where the core material comprises organic polymer.
5. A process according to any one of the preceding claims, wherein the pre-heater comprises a low shear rising film packed plate heat exchanger.

6. A process according to any one of the preceding claims, wherein extrusion is carried out using an extruder having an internal diameter greater than about 45 mm, preferably greater than about 50 mm, more preferably greater than about 60 mm.
7. A process according to any one of the preceding claims, wherein extrusion is carried out using an extruder having all conveying screw profiles and having no mixing pedals or kneading elements in the screw profile.
8. A process according to any one of the preceding claims, wherein the water-soluble encapsulating material is present in an amount in the range 20% weight to 60% weight, preferably an amount in the range 25% weight to 50% weight, based on the weight of the slurry.
9. A process according to any one of the preceding claims, wherein the aqueous solution is present in an amount in the range 10% weight to 30% weight, preferably an amount in the range 10% weight to 25% weight, based on the weight of the slurry.
10. A process according to any one of the preceding claims, where core material is present in an amount in the range 5% weight to 50% weight preferably in an amount in the range 10% weight to 30% weight, more preferably an amount in the range 15% to 25% weight, based on the weight of the slurry.
11. A process according to any one of the preceding claims, wherein perfume is present in an amount 10% weight to 60% weight, more preferably an amount in the range 15% to 45% weight, based on the weight of the slurry.
12. A process according to any one of the preceding claims, wherein the slurry includes colouring material.

13. A process according to any one of the preceding claims, wherein the extruded material is processed by a technique selected from chopping, cutting, preferably face-cutting, grinding and pulverising to produce particles.
14. A process according to any one of the preceding claims, wherein the slurry is heated to a temperature in the range 40°C to 170°C.
15. A process according to any one of the preceding claims, wherein heating of the slurry reduces the water content to less than 15% weight, more preferably less than 10% weight of slurry.
16. A process according to any one of the preceding claims, wherein the extruder is maintained at a temperature in the range 70°C to 240°C, preferably 80°C to 220°C, more preferably 80°C to 160°C.
17. A particle produced by the process of any one of the preceding claims.
18. A dry product or article containing a particle according to claim 17.
19. A product or article according to claim 18, selected from laundry product, autodishwash powders, autodishwash tablets, sheet conditioners, rim blocks, soap and powder and granular cleaning compositions.